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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,226	03/10/2004	Stephen M. Lewis	14263.2USU1	3484
23552	7590	11/20/2006	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			SRIVASTAVA, KAILASH C	
			ART UNIT	PAPER NUMBER
			1657	

DATE MAILED: 11/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/798,226

Applicant(s)

LEWIS ET AL.

Examiner

Dr. Kailash C. Srivastava

Art Unit

1657

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-83 is/are pending in the application.
- 4a) Of the above claim(s) 2-10, 20, 23, 29, 30, 37-42 and 81-83 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1, 11-19, 21-22, 24-28, 31-36 & 43-80 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicants' response filed 28 August 2006 to election requirement in Office Action mailed 26 May 2006 and pursuant to discussions at Interview-in-person of 17 August 2006 is acknowledged and entered.
2. The Art Unit Location for your application under prosecution at the United States Patent and Trademark Office (i.e., USPTO) has been changed to Art Unit 1657. To aid in correlating any papers for this application (i.e., 10/798,226) all further correspondence regarding this application should be directed to Examiner Kailash C. Srivastava in Art Unit 1657.

Claims Status

3. Claim 14 has been cancelled.
4. Claims 43-83 have been added.
5. Claims 1, 15-20 and 29-32 have been amended.
6. Claims 1-13 and 15-83 are pending

Restriction/Election

7. Applicants' election of Group IV comprising Claims 11-19, 21-22, 24-28 and 31-36 with traverse filed 28 August 2006 to election requirement in Office Action mailed 26 May 2006 is acknowledged and entered.

Applicants "do not acquiesce to any statement" in restriction requirement cited *supra* and traverse said restriction requirement on pages 2- 5 of the Office Action mailed 26 May 2006. Not specifying any inventive group, applicants' traversal is on the grounds that "claims could be searched together without undue burden".

Applicants' arguments are fully and carefully considered, however, said argument is not found persuasive for the reasons of record on page 2-5 the Office Action mailed 26 May 2006. Moreover, the search for each of the distinct inventions of Groups I-XI is not co-extensive

particularly with regard to the literature search because a different search strategy needs to be formulated for each one of the inventions grouped in inventive Groups I-XI. Further, a reference that would anticipate the invention of one group would not necessarily anticipate or even make obvious another group. Finally, the condition for patentability is different in each case. Thus, it will be an undue burden to examine all of the inventive Groups in one application.

Accordingly, Claims 2-10, 20, 23, 29-30, 37-42 and newly presented Claim 81 dependent on Claim 3 are withdrawn from further consideration as being directed to a non-elected invention. Newly presented claims 82-83 are also withdrawn from consideration because they relate to invention Claimed in Group X, drawn to a composition. See 37 CFR §1.142(b) and MPEP § 821.03.

8. Further review in this application shows that a restriction to Claims 1, 11-19, 21-22, 24-28, 31-36 and newly presented Claims 43-80 under 35 U.S.C. §121 is required to one of the following inventions as outlined below:

- Group XII, consisting of claims 1, 11, 16, 19, 22, 24-25 and 45-48 drawn to a method to make ethanol via reducing a plant material, followed by enzymatic saccharifying, fermenting, or simultaneous saccharification and fermentation of said reduced plant material in temperature range of 25°C-40°C and further, reducing the temperature during fermentation, classified under Class 426, Subclass 20, for example.
- Group XIII, consisting of claims 1, 12-13, 17-18, 21, 26-28, 31-36, 43-44, 49-50 and 52 drawn to a method to make ethanol via reducing a plant material, enzymatic saccharification, fermentation or both enzymatic saccharification and fermentation of said reduced plant material a yeast in temperature range of 25°C-40°C and further, reducing the temperature during fermentation, classified under Class 435, Subclass 911, for example.
- Group XIV, consisting of claims 1, 15 and 53-79 drawn to a method to make ethanol via reducing a plant material, enzymatic saccharification, fermentation or both enzymatic saccharification and fermentation of said reduced plant material conducted in a pH range of 3-6 and temperature range of 25°C-40°C further, reducing the

temperature during fermentation and fermentation is carried out by a fermenting microorganism, classified under Class 435, Subclass 41, for example.

- Group XV, consisting of claims 1 and 51 drawn to a method to make ethanol and significantly less glycerol, acetic and lactic acids via reducing a plant material, followed by enzymatic saccharifying, fermenting, or simultaneous saccharification and fermentation of said reduced plant material in temperature range of 25°C-40°C and further, reducing the temperature during fermentation, classified under Class 435, Subclass 139, for example.
- Group XVI, consisting of claims 15 and 80 drawn to a method to make ethanol and significantly less glycerol, acetic and lactic acids as well as significantly less contamination than the conventional process via reducing a plant material, enzymatic saccharification, fermentation or both enzymatic saccharification and fermentation of said reduced plant material conducted in a pH range of 3-6 and temperature range of 25°C-40°C further, reducing the temperature during fermentation and fermentation is carried out by a fermenting microorganism, classified under Class 435, Subclass 800, for example.

Inventions are Independent and Distinct

9. The inventions are distinct, each from the other because of the following reasons:

Inventions in Groups XII-XVI are unrelated to each other because they are directed to different inventions that are not connected in design, operation/ contents and/or effect. These inventions are independent since they are not disclosed as capable of use together. They have different modes of operation, they have different functions, and/or they have different effects. One would not have to practice the various methods at the same time to practice just one method alone (MPEP § 806.04, MPEP § 808.01). In the instant case, for example invention recited in claims encompassed in Group XII do not recite a distinctive limitation of conducting fermentation in the pH range of about 3.0 to about 6.0 and therefore are directed to a method having steps that are not the same as for e.g., for the invention in Group XVI invention, and would therefore, may not be practiced together.

The inventions discussed above are independent and distinct, each from the other. They have acquired a separate status in the art as a separate subject for inventive effect and require independent searches. The search for each one of the above inventions is not coextensive, particularly with regard to the literature search. For example the search strategy for simultaneous enzymatic saccharification of reduced plant materials and fermentation of said reduced, saccharified plant materials in to ethanol followed by recovery of distiller's grains and solids will require different key words than the search strategy for stepwise saccharification of reduced plant materials and fermentation of said reduced, saccharified plant materials. Further, a reference that would anticipate the invention of one group would not necessarily anticipate or even make obvious another group. Finally, the consideration for patentability is different in each case. Thus, it would be an undue burden to examine all of the above inventions in one application. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification (Class and subclass), and their recognized diverse subject matter, restriction for examination purposes as indicated is proper.

10. Applicants are advised that a reply to this requirement must include an identification of an invention elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicants will be entitled to consideration of additional claims which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR §1.141. Currently, Claims 1, and each of the Claims 15, 82 and 83 are generic claims. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. §103(a) of the other invention.


11. Applicants are reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR §1.48(b). Any amendment of inventorship must be accompanied by a petition under 37 CFR §1.48(b) and by the fee required

under 37 CFR §1.17(I).


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kailash C. Srivastava whose telephone number is (571) 272-0923. The examiner can normally be reached on Monday to Thursday from 7:30 A.M. to 6:00 P.M. (Eastern Standard or Daylight Savings Time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Jon Weber can be reached at (571)-272-0925 Monday through Thursday 7:30 A.M. to 6:00 P.M. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding may be obtained from the Patent Application Information Retrieval (i.e., PAIR) system. Status information for the published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (i.e., EBC) at: (866)-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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Art Unit 1657
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November 13, 2006


DAVID M. NAFF
PRIMARY EXAMINER
ART UNIT 128/1657